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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/691,168

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Jeffrey J. Folkins

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EXAMINER

QIN, YIXING

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/691,168	<b>Applicant(s)</b> FOLKINS, JEFFREY J.	
	<b>Examiner</b> Yixing Qin	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 February 0708.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 5-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of the restriction requirement in the reply filed on 2/7/08 is acknowledged. The traversal is on the ground(s) that the two groups of claims should fall under one group. This is not found persuasive because the Examiner has previously identified that group II differs from group I in that group II contains additional limitations such as the claim of the relationship of leading and trailing edges to scanlines. Group I is silent on such a relationship. The examiner has previously pointed out that certain claims in group II cite similar limitations as that of group I, but the independent claims of group II claim different aspects than the independent claim of group I, as explained above.

The requirement is still deemed proper and is therefore made FINAL.

### ***Response to Arguments***

Applicant's arguments filed 10/17/07 have been fully considered but they are not persuasive. The arguments presented is that the Examiner's usage of the various numbers in the Asakawa reference for a possible calculation of the minimum design distance is not enough to be obvious. The Examiner respectfully disagrees. In the applicant's specification, P[0074] only gives an example that the minimum design distance is chosen to be (5+5 mm) for the leading and trailing edges. This appears to simply be an arbitrary value for a given printer, so that there is some space between two areas where image is to be developed.

In the Asakawa reference, column 5, lines 1-7 discloses that step associated to their invention is triggered from the detection of a gap. Also the gap size is measured. In column 8, lines 22-29, Asakawa disclose that the gap includes also include margins for a page. Thus the gap can be interpreted as the bottom margin of a first page, the space between the pages, and the top margin of the next page. Thus, it would be obvious that there is at least a minimum design distance of the margins to be taken into account. For example, if a document is to have sheets of papers set to have 0.25 inch margins, then there is at least a gap of 0.5 inches between two pages since a bottom margin of a first page and the top margin of a next page add up to 0.5. Thus, from a given gap, one of ordinary skill can figure out at least a minimum margin of at most 1/2 the gap distance, if there is no space between the two sheets of paper. And again, one of ordinary skill would realize that the gap has to be a sufficient enough size to be identified as a gap as opposed to, for example, some blank lines between lines of text on a page. Or even more simply put, a margin size in the Asakawa reference can be used as a minimum design distance, since the invention can include the margins as part of the gap distance, and the Asakawa invention needs those values to properly figure out how much the print swath overlaps the edges of two pages. Thus, the rejection stands.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

I. Claims 1-4 rejected under 35 U.S.C. 103(a) as being unpatentable over Asakawa (U.S. Patent No. 6,604,804).

Regarding claim 1, Asakawa discloses a method for minimizing the Inter-Document Zone (IDZ) in multi-pass printing system architectures with print engines employing asynchronous paper delivery; and providing control over paper feed and imaging times comprising:

a) receiving input electronic data of an image intended to be printed; (Fig. 5, items 160-164)

b) inspecting said data to determine a lead edge (L.E.) lank border of said image; (c4, lines 53-55, c8, lines 22-29 – the Asakawa reference discloses that the gap G can include margins, which is equivalent to blank borders) and

Asakawa does not explicitly disclose “c) on a page by page basis determining whether said blank borders exceed a minimum design distance and adjust imaging and paper delivery timing accordingly to increase subsequent printing speed.”

However, Asakawa discloses in c8, lines 1-29 the measurement of distances Pd, G and R. While does not explicitly disclose that the blank borders exceed a minimum design distance, the calculation of such information is available to on of ordinary skill since the Asakawa reference discloses the use of the swath distance to be the sum of

the distances Pd, G and R. Also note in column 7, lines 38-51 where the Asakawa invention uses knowledge of the gap size in order to facilitate printing. For the sake of argument, the gap distance, margins of a page that make up the gap G, has to inherently be above an arbitrary minimum distance in order for it to be identified as a gap according to the Asakawa invention – see column 5, lines 20-44.

Column 8, lines 30-37 discloses the pushing back of data in order to compensate for the blank areas, which is a form of image adjustment.

Asakawa also discloses in column 1, lines 23-47, especially lines 43-47, that media can be advanced faster if there is white space. The advancement of data at a faster rate is an adjustment to the paper delivery timing.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have adjusted various settings in order to improve printing.

The motivation would have been to reduce the time needed to print if adjustments can be made to skip white or blank areas on a page.

Therefore, it would have been obvious to improve to obtain the invention as specified.

Regarding claim 2, Asakawa discloses the method of claim 1 where when the L.E. blank borders exceed the minimum design distance the images corresponding to that page are printed sooner than nominally. (column 4, lines 36-44, the leading edge of the next page indicates a gap. When the print head's swatch expands onto the next page, the images on that next page are printed faster)

Regarding claim 3, Asakawa discloses the method of claim 1 further comprising  
d) inspection said data to determine a trail edge (T.E.) blank border of said  
image; (c4, lines 53-55, c8, lines 22-29 – the Asakawa reference discloses that the gap  
G can include margins, which is equivalent to blank borders) and

e) on a page by page basis determining whether said blank borders exceed a  
minimum design distance and adjust image and paper delivery timing accordingly to  
increase subsequent printing speed such that when where the T.E. blank exceeds the  
minimum design distance the image corresponding the subsequent document are  
printed sooner than nominally. (column 4, lines 36-44, the leading edge of the next page  
indicates a gap. When the print head's swath expands onto the next page, the images  
on that next page are printed faster. The next page is the subsequent document. Thus,  
the timing of when the print swaths are to print is adjusted in order to print the entire  
multi page document faster.)

Regarding claim 4, Asakawa discloses the method of claim 3 where when the  
T.E. blank borders exceed the minimum design distance any transition events timing is  
performed sooner than nominally. ( column 1, lines 23-47, especially lines 43-47, that  
media can be advanced faster if there is white space. The advancement of data at a  
faster rate is an adjustment to the paper delivery timing – i.e. the transition event timing)

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yixing Qin whose telephone number is (571)272-7381. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YQ

/Mark K Zimmerman/  
Supervisory Patent Examiner, Art Unit 2625